

## Claims

What is claimed is:

1. A high strength stringed musical instrument neck, which is constructed so that the tension from a plurality of strings acting upon it in singular plane is controlled and redirected by a monocoque outer structure as an opposing force to the tension imposed by the plurality of strings, and improved method of construction comprising:
  - a length of hard wood shaped as the instruments neck; and
  - two separate strengthening beams made from graphite and epoxy resins and, adhesively securing said beams to and within the wood; and
  - one external strengthening shell made from carbon cloth and epoxy resins, and adhesively securing said shell to the wood and both beams inclusive; and
  - a fingerboard adhesively secured, and
  - a two way truss rod assembly made from stainless steel being adjustable to facilitate upbow and backbow relative to the playing surface.
2. A high strength stringed musical instrument neck, wherein both strengthening beams are made from graphite in epoxy resins and one of which is in the form of a flat plate and the other is in the form of a rectangular rod and each having a generally flat bottom and top surface.
3. A high strength stringed musical instrument neck, wherein the external strengthening shell is made from a plurality of layers of carbon cloth cast in epoxy resins and formed upon a mold and the weave of said cloth is disposed at an angle of 45 degrees to the longitudinal axis of said mold to form an external truss structure and having a semi-elliptical cross sectional shape.
4. A high strength stringed musical instrument neck comprising the steps of:
  - providing a structural length of hard wood shaped as the instruments neck; and
  - providing two graphite strengthening beams; and
  - machining the length of hard wood to accept the installation of said beams; and

adhesively securing said beams; and  
providing an external carbon fiber strengthening shell; and  
adhesively securing said shell to the wood and both beams inclusive; and  
providing a stainless steel two way truss rod assembly within the wood core, and  
providing a fingerboard and adhesively securing it to the neck.

A handwritten signature in black ink, appearing to read "Zya R. Moore".

February 26, 2003